Com Sci 221 — Programming Languages
Doing Your CS221 Programming Assignments

(by Mike O'Donnell, Dec. 1992, revised Jan. 1994)

1 Computer Systems

All of the computing work for this course will be done on the Unix systems run by Academic and Public Computing on the machines called Quads, Ellis, and Kimbark. You already have an account for these machines. If you do not know how to access your account, call "Public User Accounts" at 702-3111, and speak to the instructor about whether you have enough computer experience to be ready for the course.

You will need to use the following programming language interpreters and compilers for your Com Sci 221 homework:

Language	**Version**	**Command**	
Pascal		`/usr/lang/pc`	(compiler)
C		`/usr/lang/cc` or `/usr/lang/CC`	(compiler)
Scheme	MIT Scheme	`/cs2/scheme`	(interpreter)
Prolog	Edinburgh C-Prolog	`/cs2/prolog`	(interpreter)
ML	Standard ML of New Jersey	`/usr/local/bin/sml`	(interpreter)

The handiest way to use these commands is to make sure that `/usr/local/bin` and `/usr/lang` and `/cs2/bin` are in your `PATH` variable, and then you just type `pc`, `cc`, etc.

For Pascal and C, use any of the well-known published manuals. I will place a manuals in Ryerson 178 for reference. For Scheme, Prolog, and ML, documentation is in `/cs2/doc`. I will also place a book by Hogger, called *Introduction to Logic Programming,* in Ryerson 178 for a more thorough treatment of Prolog than you can get from the CProlog manual.

2 Laboratory Access

You may do your computing work from any terminal or computer that can connect to Quads, Ellis, or Kimbark. Several Sun SPARC stations, running the X Windows system are available in Ryerson 175 for your use. I recommend that you use Ryerson 175 as much as possible, and take advantage of X Windows. Ryerson 175 is open during the same hours as the MacIntosh laboratory in Ryerson 178. Ask the lab tutor in Ryerson 178 to let you in to Ryerson 175.

In order to use the SPARC stations, you must create a file called `.rhosts` in your home directory on Quads/Ellis/Kimbark, containing the names of the SPARC stations and your login name. Substitute your own login for mine (`odon`) in the following example:

```
piroska.uchicago.edu odon
daffodil.uchicago.edu odon
larkspur.uchicago.edu odon
blake.uchicago.edu odon
orpheus.uchicago.edu odon
```

In order to use the commands that exploit the X Windows system, add `/usr/local/X11R4/bin` to your `PATH` variable.

3 Deadlines

All homework assignments are due at the beginning of class on the due date. I am very unfriendly to the practice of missing class or coming late in order to finish a homework assignment. I may accept late papers occasionally, at my discretion, with a penalty of 20% for each day or fraction thereof. I will usually not accept a late paper after I have graded the ones that came on time, which I usually do the day after they are due. My attitude toward late papers becomes more and more unfriendly the more of them I see.

The spirit of the policy toward deadlines is that work is to be done on time. I will be able to understand *very* rare lapses, at an average rate of less than one per student per quarter. If there are special reasons why you need extra time for a particular assignment, you should of course tell me as soon as possible, and I will consider special arrangements.

4 What to Turn In

For all of your homeworks, turn in a printed (by hand or computer) presentation of your work. Sophistication in presentation is not crucial, but clarity is. I will judge your homework, not just as a proof that you can do some technical task, but as an exercise in communicating ideas about programs and programming languages. It is part of your assignment to present your programs, sample inputs and outputs and other computational materials, and your explanations, in a way that makes it easy for me to understand what you accomplished and what you discovered.

In addition to the printed presentation, which you should bring to class on the due date, send all of your source programs and interpreter scripts by electronic mail to the helper (`jiefei@cs`). Make sure that you label these programs clearly.

5 Consultation on Assignments

Discussion among yourselves of ideas arising in class, and their application to assignments, is a legitimate and effective way to learn. But, the materials that you hand in must represent your own work. Sometimes significant discretion is required to draw the line between legitimate discussion and use of someone else's work. If you have any question about the application of such discretion, please ask me. Whenever you get an idea for an assignment from another person, or from published materials, acknowledge that in your presentation of your work. And, to get a high grade, make sure that you have contributed something beyond the ideas that you have found elsewhere, or factoids that you have learned in class and in the textbook.

```
Received: by cs.uchicago.edu from asterix.uchicago.edu (4.1/2.0)
	id AA20419; Wed, 5 Jan 94 12:14:08 CST
From: Bin Mu <mubin@cs.uchicago.edu>
Return-Path: <mubin@cs.uchicago.edu>
Received:  by asterix.uchicago.edu (4.1/UofC4.4x)
	id AA24880; Wed, 5 Jan 94 12:17:22 CST
Date: Wed, 5 Jan 94 12:17:22 CST
Message-Id: <9401051817.AA24880@asterix.uchicago.edu>
To: sandacz@cs.uchicago.edu
Cc: decc@cs.uchicago.edu, odonnell@cs.uchicago.edu, soare@cs.uchicago.edu,
	tutor@cs.uchicago.edu, techstaff@cs.uchicago.edu
Subject: final version: Student instructions for use of Ry 175 workstations
```

Instructions for use of the workstations in Ryerson 175 for your coursework:

1. You need to have an activated account with Academic and Public Computing (APC -- this means your account on the quads-ellis-kimbark cluster with email address on midway.)

   If you already have an active APC account, go on to step 2.

   If you know your assigned APC account name, but your account has not been activated, and you have some way of logging in *somewhere*, telnet to quads.uchicago.edu and login as "claims".

   If you don't have an assigned APC account name, or don't know what it is, contact the APC business office, at 1155 East 60th Street.

2. Log on to your APC account (from Usite or the Maclab, for instance). You need to make some entries in certain files in your home directory in order to enable logging on from the workstations in Ry 175, and in order to have access to the course software

   In a file called ~/.rhosts, include the following lines, but substituting your APC account name where this says "user":

daffodil.uchicago.edu user
blake.uchicago.edu user
larkspur.uchicago.edu user
orpheus.uchicago.edu user
piroska.uchicago.edu user
~~phoenix.uchicago.edu user~~

You might not already have a ~/.rhosts file; if so, go ahead and create one with the above content.

3. Still in your APC account, you need to change the path for finding software, which is probably already being set up in your ~/.cshrc file.

   Specifically, check the statement

   ```
       set path=($HOME/bin ....)
   ```

   in your .cshrc file, put the following path into it

   ```
       /nfs/cs/cs2/bin
       /usr/lang
       /usr/local/gnu/bin
   ```

   if they are not there.

   After you editing the .cshrc file, you have to do "source .cshrc" or logout and log back again to make it take effect.

4. Now you should be able to use the workstations in Ryerson 175. To get access to room 175, ask the tutors on duty across the hall in the Maclab.

Currently the workstations in 15 are all Sun SPARCs located in the south half of the room. Find one which is not in use and is displaying a "login:" prompt. Enter your APC account name and, when asked, your password for that account. You will be asked which of the three APC machines you want to connect to; respond by typing the indicated letter, or just press RETURN for the default of quads.

The screen should soon display a solid background, a digital clock, a mailbox icon, and an Icon Manager window. The icon manager should show one item listed, with the name of the APC computer you chose. Click on this item with the left-hand mouse button to open or close a window where you will find a login session for your APC acount.

Press a mouse button when the mouse cursor is located in the solid screen background, to see other menus concerning display and operation.

5. To logout, press the left mouse button to bring up a menu. Pull down to the "Logout" item, then move the mouse rightward to open a submenu. Slide down to "Confirm Quit" and release the mouse button, if you do want to quit.

6. If somehow you find yourself logged directly in to the workstation and not your APC account, please do not try to tamper with any files you might find there. These files do not belong to you, and messing with them will be regarded as unauthorized use of the computer. If you have suggestions about the default display and other aspects of the setup, please send them to techstaff@cs (but don't try to implement them yourself).